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TITLE : PRODUCTION OF FERRITIC STAINLESS STEEL PLATE EXCELLENT IN FORMABILITY AND RIDGING RESISTANCE

ABSTRACT : PURPOSE: To produce a ferritic stainless steel plate excellent in formability and ridging resistance while preventing the occurrence of scale by controlling the oxygen concentration in the atmosphere in the case of hot-rolling a ferritic stainless steel to a value in a specific range and performing hot rolling at a low temp.

CONSTITUTION: A ferritic stainless steel, which has a composition containing, by weight, <0.015% C, <1% Si, <1% Mn, <0.04% P, <0.005% S, 11-25% Cr, 0.1-0.4% Nb, <0.015% N, and 0-0.1% Ti and satisfying $(C+N) \leq 0.02\%$ or further containing at least one kind among <1% Cu, <1% Ni, and <2% Mo, is used. At the time of hot-rolling a slab of this ferritic stainless steel into plate, the slab is subjected to soaking treatment at $1100-1200^{\circ}\text{C}$ (T) in the atmosphere having an oxygen concentration represented by $49-0.04 \times T \leq O_2(\text{vol.}\%) \leq 5$ (where T is a soaking temp. before the hot rolling of the slab), followed by hot rolling. By this method, the occurrence of scales in the hot rolled plate can be prevented, and the ferritic stainless steel plate having excellent characteristics can be stably produced at a low cost.

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